

QUINN EMANUEL URQUHART & SULLIVAN, LLP
Amar L. Thakur (Bar No. 194025)
amarthakur@quinnemanuel.com
Bruce R. Zisser (Bar No. 180607)
brucezisser@quinnemanuel.com
David Grable (Bar. No. 237765)
davegrable@quinnemanuel.com
865 South Figueroa Street, 10th Floor
Los Angeles, California 90017-2543
Telephone: (213) 443-3000
Facsimile: (213) 443-3100

Joshua L. Sohn (Bar No. 250105)
joshuasohn@quinnemanuel.com
777 6th Street NW, 11th Floor
Washington, D.C. 20001
Telephone: (202) 538-8000

10 Attorneys for Defendants
11 NOVATEL WIRELESS, INC., VERIZON
12 COMMUNICATIONS, INC., AND
CELLCO PARTNERSHIP D/B/A
VERIZON WIRELESS

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF CALIFORNIA

16 CARUCEL INVESTMENTS, L.P., a
17 Delaware limited partnership,
Plaintiff.

NO. 3:16-CV-00118-H-KSC

**DEFENDANTS' OPPOSITION TO
CARUCEL'S DAUBERT MOTION
REGARDING DR. DEFOREST
MCDAUFE**

19 NOVATEL WIRELESS, INC., a
20 Delaware corporation, VERIZON
21 COMMUNICATIONS, INC., a Delaware
22 corporation, CELLCO PARTNERSHIP
D/B/A VERIZON WIRELESS, a
Delaware general partnership,

Defendants.

[PUBLIC REDACTED VERSION]

1
2 **TABLE OF CONTENTS**
3
4

| | <u>Page</u> |
|---|-------------|
| I. INTRODUCTION..... | 1 |
| II. LEGAL STANDARD | 2 |
| III. FACTUAL BACKGROUND | 2 |
| A. Dr. McDuff's Apportionment Methodology | 3 |
| 1. Dr. McDuff's Relevant Use Apportionment | 3 |
| 2. Dr. McDuff's Price-Based Apportionment | 4 |
| A. Dr. McDuff's Analysis of Comparable Licenses..... | 5 |
| IV. ARGUMENT | 7 |
| A. Dr. McDuff's Apportionment Is Firmly Grounded In Accepted Methodology | 7 |
| 1. Dr. McDuff's Relevant Use Apportionment Properly Ties the Royalty Base to the Value of the Claimed Invention | 7 |
| 2. Dr. McDuff Does Not "Double Count" Apportionment | 10 |
| 3. Dr. McDuff Is More Than Qualified To Opine On the Value of Carucel's Invention..... | 10 |
| 4. User Statistics Are a Reliable Basis For Estimating Relevant Use | 11 |
| 5. Dr. McDuff's Reliance On Time Use Surveys Is Reasonable and Reliable..... | 13 |
| 6. Dr. McDuff's Price-Based Apportionment Properly Accounts For the Value of Later-Added Non-Infringing Functionality | 14 |
| B. Dr. McDuff's Analysis of the Gogo Settlement Is Proper..... | 15 |
| C. Dr. McDuff's Analysis of Comparable Novatel Licenses Is Closely Tied to the Facts of the Case..... | 16 |
| V. CONCLUSION | 18 |

1
2 **TABLE OF AUTHORITIES**

| | <u>Page</u> |
|--|-------------|
| Cases | |
| <i>2-Way Computing, Inc. v. Sprint Solutions, Inc.</i> , No. 2:11-cv-12, 2015 WL 2365648 (D. Nev. May 18, 2015)..... | 17 |
| <i>ActiveVideo Networks, Inc. v. Verizon Commc'ns, Inc.</i> , 694 F.3d 1312 (Fed. Cir. 2012)..... | 17 |
| <i>Cohen v. Trump [NO CITATION]</i> | 7 |
| <i>Commonwealth Sci. & Indus. Research Organisation v. Cisco Sys., Inc.</i> , 809 F.3d 1295 (Fed. Cir. 2015)..... | 14 |
| <i>Daubert v. Merrell Dow Pharm., Inc.</i> , 509 U.S. 579 (1993) | 2,1 3, 17 |
| <i>Droplets, Inc. v. Overstock.com, Inc.</i> , No. 2:11-CV-401-JRG-RSP, 2015 WL 11120843 (E.D. Tex. Jan. 7, 2015)..... | 14 |
| <i>Emerson Elec. Co. v. Suzhou Cleva Elec. Appliance Co.</i> , No. 4:13CV1043SPM, 2015 WL 8916113 (E.D. Mo. Dec. 15, 2015) | 9 |
| <i>Ericsson, Inc. v. D-Link Sys., Inc.</i> , 773 F.3d 1201 | 7, 10 |
| <i>Finjan, Inc. v. Blue Coat Sys., Inc.</i> , No. 13-CV-03999-BLF, 2015 WL 4272870 (N.D. Cal. July 14, 2015) | 9, 12 |
| <i>GPNE Corp. v. Apple, Inc.</i> , No. 12-CV-02885-LHK, 2014 WL 1494247 (N.D. Cal. Apr. 16, 2014) | 8 |
| <i>i4i Ltd. P'ship v. Microsoft Corp.</i> , 598 F.3d 831 (Fed. Cir. 2010) | 2, 11 |
| <i>LaserDynamics, Inc. v. Quanta Computer, Inc.</i> , 694 F.3d 51 (Fed. Cir. 2012) | 2, 9 |
| <i>Lucent Techs., Inc. v. Gateway, Inc.</i> , 580 F.3d 1301 (Fed. Cir. 2009)..... | 2, 11 |
| <i>In re Maxim Integrated Prods., Inc.</i> , No. 12-945, 2015 WL 5311264 (W.D. Pa. Sept. 11, 2015) | 16 |
| <i>Omega v. Calamp, [NO CITATION]</i> | 7 |

| | | |
|----|---|-----------|
| 1 | <i>Oracle Am., Inc. v. Google Inc.</i> No. 10-03561 WHA 2011 U.S. Dist. LEXIS 136172 (N.D. Cal. Nov. 28, 2011)1 | 11 |
| 3 | <i>PerdiemCo, LLC v. Industrack LLC,</i> No. 2:15-CV-726-JRG-RSP, 2016 WL 6611488 (E.D. Tex. Nov. 9, 2016) | 15, 16 |
| 5 | <i>Presidio Components, Inc. v. Am. Tech. Ceramics Corp.</i> , 702 F.3d 1351 (Fed. Cir. 2012) | 11 |
| 6 | <i>ResQNet.com, Inc. v. Lansa, Inc.</i> , 594 F.3d 860 (Fed. Cir. 2010) | 8 |
| 8 | <i>Sentius Int'l, LLC v. Microsoft Corp.</i> , No. 5:13-CV-00825-PSG, 2015 WL 331939 (N.D. Cal. Jan. 23, 2015) | 11 |
| 10 | <i>Summit 6, LLC v. Samsung Elecs. Co.</i> , 802 F.3d 1283 (Fed. Cir. 2015) | 2, 10, 14 |
| 11 | <i>Ultimatepointer, LLC v. Nintendo Co., Ltd.</i> , No. C14-0865RSL, 2014 WL 7340545 (W.D. Wash. Dec. 22, 2014) | 14 |
| 13 | <i>Uniloc USA, Inc. v. Microsoft Corp.</i> , 632 F.3d 1292 (Fed. Cir. 2011) | 9, 14 |
| 15 | <i>VirnetX, Inc. v. Cisco Sys., Inc.</i> , 767 F.3d 1308 (Fed. Cir. 2014) | 7, 9 |

Statutes

| | | |
|----|-------------------------|-------|
| 18 | Fed. R. Evid. 702 | 2, 10 |
|----|-------------------------|-------|

1 **I. INTRODUCTION**

2 Carucel's damages claim has now swollen to **\$45 million** based on a per unit
3 royalty rate of \$8 for each Accused Product. This per-unit royalty exceeds what
4 Novatel pays [REDACTED] for a license to thousands of fundamental patents on
5 wireless communication. The only way Carucel can credibly advance that figure in
6 front of the jury is by convincing the Court to throw out the mountain of evidence
7 demonstrating the absurdity of Carucel's claim—the fact that Carucel's only prior
8 license netted a relatively paltry [REDACTED] from a substantially larger accused
9 infringer, the fact that Novatel has never paid or received anything close to that
10 amount for MiFi-related licenses, and the fact that only a small fraction of MiFi
11 users utilize Carucel's invention.¹ All of this evidence is laid out and analyzed in
12 the rebuttal damages report of Defendants' expert, Dr. DeForest McDuff.

13 Dr. McDuff's report is an entirely conventional damages analysis based on
14 well-established principles of law, widely accepted methodologies, and undeniably
15 relevant evidence. Dr. McDuff presents four different damages models, based on
16 the evidence Carucel wants to sweep under the rug—one model based on usage
17 statistics and apportionment principles, and three based on license agreements
18 entered into by the parties in this case. Each model is closely tied to the facts of this
19 case, based on sound methodology, and deserves to be heard by the jury.

20 Carucel finds fault with Dr. McDuff's analysis by mischaracterizing his
21 opinions, misstating the law, and criticizing Dr. McDuff's supposed "failure" to
22 meet requirements that simply do not exist. Carucel also repeatedly asks the Court
23 to make new law—to become the first Court to exclude a defense expert for
24 apportioning *too much*, for example, or to find that a license *involving the patents-in-suit* is somehow not comparable. In the end, Carucel does not provide this Court
25
26

27 ¹ Since this Opposition relates to damages, it assumes a finding of infringement.

1 with any basis to prevent the jury from considering Dr. McDuff's opinions.
 2 Carucel's motion should be denied.

3 **II. LEGAL STANDARD**

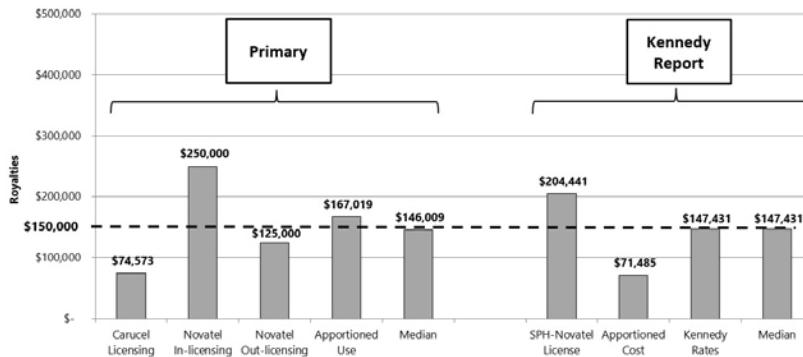
4 An expert witness may provide opinion testimony if: (1) "the testimony is
 5 based upon sufficient facts or data;" (2) "the testimony is the product of reliable
 6 principles and methods; and" (3) "the expert has reliably applied the principles and
 7 methods to the facts of the case." FED. R. EVID. 702; *see also Daubert v. Merrell*
 8 *Dow Pharm., Inc.*, 509 U.S. 579, 589-90 (1993). Under *Daubert*, the trial court is
 9 limited to a gatekeeping role and must be sure that its review of expert testimony
 10 focuses "solely on principles and methodology, not on the conclusions that they
 11 generate." *Daubert*, 509 U.S. at 592–94, 596; *see also i4i Ltd. P'ship v. Microsoft*
 12 *Corp.*, 598 F.3d 831, 854 (Fed. Cir. 2010) ("*Daubert* and Rule 702 are safeguards
 13 against unreliable or irrelevant opinions, not guarantees of correctness.").

14 Moreover, "estimating a reasonable royalty is not an exact science," *Summit*
 15 *6, LLC v. Samsung Elecs. Co.*, 802 F.3d 1283, 1296 (Fed. Cir. 2015), and
 16 "necessarily involves an element of approximation and uncertainty." *Lucent Techs.,*
 17 *Inc. v. Gateway, Inc.*, 580 F.3d 1301, 1336 (Fed. Cir. 2009). Thus, if the expert's
 18 "methodology is sound, and the evidence relied upon [is] sufficiently related to the
 19 case at hand, disputes about the degree of relevance or accuracy . . . may go to the
 20 testimony's weight, but not its admissibility." *i4i*, 598 F.3d at 852.

21 **III. FACTUAL BACKGROUND**

22 Dr. McDuff's damages analysis is based on the *Georgia-Pacific* factors and
 23 hypothetical negotiation framework. Dr. McDuff's analysis is grounded in two
 24 widely recognized principles of patent damages law: (1) that licenses for
 25 comparable technology are informative of how the parties would value the patents-
 26 in-suit in a hypothetical negotiation, and (2) the ultimate royalty must be
 27 apportioned to exclude value that is not associated with the claimed invention.
 28 *Summit 6*, 802 F.3d at 1297-98; *Lucent*, 580 F.3d at 1334; *LaserDynamics, Inc. v.*

1 *Quanta Computer, Inc.*, 694 F.3d 51, 78-79 (Fed. Cir. 2012). Accordingly, Dr.
 2 McDuff provides four primary damages models—one based on apportionment
 3 principles, and three others based on comparable licenses—which lead him to
 4 conclude the appropriate royalty range is between \$74,573 and \$250,000:²



11 A. Dr. McDuff's Apportionment Methodology

12 Dr. McDuff applied a two-step apportionment to the royalty base to account
 13 for functionality that is unrelated to the patents-in-suit. First, he reduced the royalty
 14 base according to the percentage of MiFi use that occurs while the user and device
 15 are in transit (“Relevant Use Apportionment”). (McDuff Report³ ¶¶ 45e, 71a,
 16 Attachment D-1.) Second, Dr. McDuff compared the price of later models of the
 17 accused products to the original MiFi 2200 in order to account for the value of non-
 18 infringing features added to later models (“Price-Based Apportionment.”) Each step
 19 is discussed below.

20 1. Dr. McDuff's Relevant Use Apportionment

21 Dr. McDuff’s Relevant Use Apportionment seeks to tie the royalty base to the
 22 economic value of Carucel’s invention—a movable base station with multiple
 23 antennas that is constructed to move with users at high speeds. Accordingly, Dr.

24
 25
 26 ² As indicated in the chart below, Dr. McDuff also provides three models based
 27 on adjustments and corrections to Dr. Kennedy’s analysis .

28 ³ The McDuff Report is attached as Exhibit 1 to the Declaration accompanying
 Plaintiff’s *Daubert* motion.

1 McDuff looked at statistics showing how often MiFi users may actually be capable
2 of utilizing this capability. Dr. McDuff primarily relies on Verizon usage
3 statistics—collected by Verizon in the ordinary course of its business—showing the
4 number of cell sites recorded during each MiFi session. Due to practical constraints
5 — Verizon’s servers are set up to store usage data for only 8 days — the reports
6 generated by Verizon were limited to two 24-hour periods in two cities (Dallas and
7 Philadelphia) with high commuter rates. Despite these restrictions, the Verizon data
8 provided a sample size of nearly [REDACTED] sessions. In consultation with Dr. Kenney
9 and Verizon engineers, Dr. McDuff determined that connecting to four or more cell
10 towers indicated MiFi use while in transit, because users in densely populated areas
11 frequently connect with two or three cell towers even while stationary. The Verizon
12 usage statistics show that only [REDACTED] of MiFi sessions were during transit, and thus
13 Dr. McDuff apportions the royalty base accordingly. Because [REDACTED] represents the
14 time MiFi is capable of being used in transit, Dr. McDuff uses this apportionment
15 factor to calculate the high-end royalty under his apportionment methodology.

16 As a secondary method of estimating the percentage of MiFi use while in
17 transit, Dr. McDuff relies on certain studies published by the Bureau of Labor and
18 Statistics, the U.S. Census Bureau, and the Department of Transportation. Using
19 these surveys, Dr. McDuff identifies the percentage of time spent traveling for work
20 or recreation. He then factors out the travel time where the sole occupant of a
21 vehicle is the driver, based on the assumption that drivers would be far less likely to
22 use a MiFi device while operating a vehicle. Based on these surveys, Dr. McDuff
23 determines that the relevant use case would represent 0.078% of overall work and
24 recreation time. Dr. McDuff uses this apportionment factor (0.078%) to calculate
25 the low-end royalty under his apportionment methodology.

26 2. Dr. McDuff’s Price-Based Apportionment

27 Dr. McDuff’s Price-Based Apportionment is intended to further account for
28 the value of non-infringing features added to MiFi products over time. Later models

1 include a wide variety of features that were not present in the original MiFi 2200—
 2 the MiFi 6620L, for example, boasts an LCD display, support for up to 15 client
 3 devices, and dramatic improvements in security and connection speeds. Dr. McDuff
 4 apportions the value of these later-added features by comparing the price of the
 5 MiFi 2200 to the price of more recent models. This leads to an apportionment factor
 6 ranging between 0% and 41%, depending on the year. (McDuff Report Attachment
 7 D-1.) The Price-Based Apportionment is multiplicative—but not duplicative—of
 8 the Relevant Use Apportionment because all MiFi models have uses that are not
 9 relevant to the patents-in-suit, and all MiFi models (excluding MiFi 2200) have non-
 10 infringing features that were later added. Dr. McDuff’s two-step apportionment
 11 ensures that the royalty base is more closely tied to the value of Carucel’s invention.

12 A. Dr. McDuff’s Analysis of Comparable Licenses

13 The parties produced 19 licenses in this case.⁴ Based on extensive
 14 discussions with Dr. Kenney, as well as his own economic expertise, Dr. McDuff
 15 identifies eight of these licenses as comparable:

16 *Carucel-Gogo Settlement.* Dr. McDuff applies the *Georgia-Pacific* factors to
 17 the [REDACTED] settlement that Carucel obtained from Gogo, Inc. In connection with
 18 *Georgia-Pacific* factors 9 and 10, Dr. McDuff identifies a crucial distinction
 19 between Gogo’s products and the accused MiFi products—whereas MiFi devices
 20 are only used in transit [REDACTED] of the time, Gogo’s products are used in transit 100%
 21 of the time. Because Gogo’s products utilize the patented invention in every use
 22 case, he does not apply any apportionment along the lines of the Relevant Use
 23 Apportionment he applied with respect to Novatel. Thus, Dr. McDuff compares the
 24 [REDACTED] royalty to Gogo’s revenues prior to the settlement and identifies an

25

26

27 ⁴ Additional licenses were produced in connection with Dr. McDuff’s
 28 Supplemental Report, which is the subject of other motion practice.

1 implied royalty rate of 0.075%, which he then applies to the apportioned royalty
 2 base for Novatel's products.

3 *Novatel "In" Licenses.* Novatel produced 12 agreements in which it is the
 4 licensee. With one exception—Novatel's license to Qualcomm's entire CDMA
 5 patent portfolio—these agreements license a small number of patents for a lump
 6 sum royalty of [REDACTED]. Dr. McDuff briefly discusses each Novatel "in"
 7 license, but he only relies on three agreements:

- 8 • Novatel-Golden Bridge Technology Inc.: executed in 2012, lump
 9 sum royalty of [REDACTED];
- 10 • Novatel-EON Corp. IP Holdings LLC: executed in 2013, lump sum
 11 royalty of [REDACTED];
- 12 • Novatel-MLR, LLC: executed 2005, [REDACTED] royalty.

13 Dr. McDuff relies on these three agreements because Dr. Kenney identified them as
 14 covering comparable technology, and Dr. McDuff himself determined that they
 15 were economically comparable to the hypothetical negotiation in this case. Dr.
 16 McDuff concludes that these licenses support a royalty of \$250,000.

17 *Novatel "Out" Licenses.* In 2013, Novatel assigned its MiFi-related patent
 18 portfolio to third party Nova Intellectual Solutions, LLC. Nova produced six
 19 licenses in this case, which provide for royalties ranging from [REDACTED].
 20 Dr. McDuff relies on four of the six licenses—Nova's licenses with Sharp, Franklin
 21 Wireless, Sony, and Blackberry—and discards the remaining two based on his
 22 analysis that the agreements are not economically comparable. More specifically,
 23 Dr. McDuff excluded Nova's license with ZTE because it covered far more than just
 24 WiFi products, and also chose not to rely on Nova's license with RPX Corp.
 25 because of its unique circumstances as a patent clearinghouse. After excluding
 26 these two agreements, Dr. McDuff identifies a royalty range of \$75,000 - \$175,000
 27 and concludes (based on the *Georgia-Pacific* factors) that the appropriate amount
 28 would be "the low end of the range . . . and no more than the midpoint of \$125,000."

1 **IV. ARGUMENT**

2 A. Dr. McDuff's Apportionment Is Firmly Grounded In Accepted

3 Methodology⁵

4 Dr. McDuff did exactly what the case law says experts should do when
p>5 calculating a reasonable royalty for a product with infringing and non-infringing
p>6 functionality—he apportioned the royalty so that it is based on the value of the
p>7 claimed invention, and excluded the value of uses and functionalities that are not
p>8 attributable to Carucel’s invention. As the Federal Circuit has recognized, the
p>9 “essential requirement” of apportionment is “that the ultimate reasonable royalty
p>10 award must be based on the incremental value that the patented invention adds to the
p>11 end product.” *Ericsson, Inc. v. D-Link Sys., Inc.*, 773 F.3d 1201, 1226 (Fed. Cir.
p>12 2014; *see also VirnetX, Inc. v. Cisco Sys., Inc.*, 767 F.3d 1308, 1327 (Fed. Cir. 2014)
p>13 (“estimate what portion of the value of that product is attributable to the patented
p>14 technology.”). Dr. McDuff meets that requirement in two steps, apportioning the
p>15 royalty base to exclude (1) the value of MiFi use that is not attributable to Carucel’s
p>16 invention, and (2) the value of unpatented features added to the accused MiFi
p>17 products over time. In short, Dr. McDuff presents a garden-variety apportionment
p>18 analysis based on reliable data and well-established legal principles. Carucel’s
p>19 *Daubert* attacks on that analysis should be denied.

20 1. Dr. McDuff's Relevant Use Apportionment Properly Ties the

21 Royalty Base to the Value of the Claimed Invention

22 Carucel asserts that Dr. McDuff’s apportionment for relevant use is based on
p>23 an incorrect assumption that MiFi devices only infringe when used at high speeds.

24 ⁵ Carucel points to two instances where Dr. McDuff’s reports were partially
p>25 excluded in other cases. Both of these orders are irrelevant to any of the issues in
p>26 this case. Dr. McDuff’s exclusion in *Omega v. Calamp* related to apportionment via
p>27 a “word count methodology” and “bargaining methods,” neither of which were used
p>28 in this case. In *Cohen v. Trump*, the court’s decision did not relate to the
applicability of the surveys, but rather to the sufficiency of Dr. McDuff’s
explanation regarding one aspect of his conclusions.

1 Dr. McDuff makes no such assumption. Rather, his apportionment is based on the
 2 actual economic contribution of the patents-in-suit and the recognition that use
 3 while in transit is “the only scenario where [the invention] derives its value.” (See
 4 McDuff Report, ¶ 86a.) Carucel did not invent base stations or multiple antenna
 5 structures on base stations—Carucel itself has readily admitted as much.⁶ Instead,
 6 Carucel invented a base station with multiple antennas that is designed for use at or
 7 near the speed of traffic. Apportioning the royalty base so that it reflects the
 8 economic contribution of the patents-in-suit, in order to exclude usage that is
 9 unrelated to Caurcel’s contribution to the art, is necessary in order to “tie proof of
 10 damages to the claimed invention’s footprint in the market place.” *ResQNet.com,*
 11 *Inc. v. Lansa, Inc.*, 594 F.3d 860, 869 (Fed. Cir. 2010).

12 In essence, Carucel argues that McDuff should be excluded for apportioning
 13 *too much*—that the royalty base *must* be the entire market value of the accused
 14 devices because the claims are directed to a device that is “configured to” work in
 15 traffic. (Mot. at 5.) Courts have specifically rejected Carucel’s argument that the
 16 royalty base must be the entire value of the accused product where the claims are
 17 directed to the entire device. *See, e.g., GPNE Corp. v. Apple, Inc.*, No. 12-CV-
 18 02885-LHK, 2014 WL 1494247, at *12 (N.D. Cal. Apr. 16, 2014). In *GPNE*, the
 19 defendant’s damages expert used the value of a specific chip as the royalty base,
 20 which the patentee alleged was improper because “the patent claims are directed to
 21 the entire [iPhone] device, not just the chip.” *Id.* at *11. The court rejected this
 22 argument, noting that the royalty base was tied to “the patent’s contribution to the

23
 24 ⁶ *See Declaration of Bruce R. Zisser, Ex. 1 (Gavrilovich Dep. Tr.) at 115:4-24*
 25 (“Q. Did your father invent antenna diversity? A. Antenna diversity by itself . . . No.
 26 . . . Q. And do you believe he invented antenna diversity on a base station? . . . A.
 27 Are you asking if on a base – you know, antenna diversity on a base station may
 28 have been in a prior art.”); *id.*, Ex. 2 (Kennedy Dep. Tr.) at 41:23-42:1 (“Q. Do you
 know if the inventor invented antenna diversity? A. . . . [I]t’s my nontechnical
 understanding that he did not.”).

1 art.” The court further reasoned that to hold otherwise would “allow patent drafters
 2 to effectively abolish the [EMVR]” by “drafting patent claims to cover end
 3 products” and “recite generic . . . limitations.” *Id.* at *12-13; *see also Emerson Elec.*
 4 *Co. v. Suzhou Cleva Elec. Appliance Co.*, No. 4:13CV1043SPM, 2015 WL
 5 8916113, *3-6 (E.D. Mo. Dec. 15, 2015) (excluding patentee’s expert who based
 6 royalty on value of the overall vacuum instead of the novel caster feature, and
 7 rejecting patentee’s argument that no apportionment was needed because the claims
 8 literally covered the entire vacuum).

9 Furthermore, Carucel fails to cite a single decision where the defendant’s
 10 damages expert was excluded for apportioning “too much.” Carucel may believe
 11 that Dr. McDuff understated the value of its invention by apportioning the royalty
 12 base according to the percentage of use while moving, but that is a factual dispute it
 13 may address through cross-examination. *See, e.g., Finjan, Inc. v. Blue Coat Sys.,*
 14 *Inc.*, No. 13-CV-03999-BLF, 2015 WL 4272870, at *6 (N.D. Cal. July 14, 2015)
 15 (rejecting motion to exclude expert who had apportioned based on use of the
 16 patented feature, holding that “Plaintiff’s assertions that the analysis does not
 17 include all patents or claim elements that it asserts are infringed . . . are more
 18 appropriately subjects for cross-examination”).

19 Finally, Carucel’s contention that Dr. McDuff erred in apportioning the
 20 “royalty *base*” instead of the “royalty *rate*” clearly has it backwards. The whole
 21 purpose of apportionment is to “produce a royalty **base** . . . closely tied to the
 22 claimed invention,” *VirnetX*, 767 F.3d at 1327 (Fed. Cir. 2014) (emphasis added),
 23 and for years the Federal Circuit took the position that apportioning the royalty rate
 24 was insufficient under the entire market value rule. *Uniloc USA, Inc. v. Microsoft*
 25 *Corp.*, 632 F.3d 1292, 1320 (Fed. Cir. 2011) (“The Supreme Court and this court’s
 26 precedents do not allow consideration of the entire market value of accused products
 27 for minor patent improvements simply by asserting a low enough royalty rate.”); *see*
 28 *also LaserDynamics, Inc. v. Quanta Computer, Inc.*, 694 F.3d 51, 67 (Fed. Cir.

1 2012). The Federal Circuit only recently indicated that applying a low-enough
 2 royalty may, in some cases, satisfy the apportionment requirement—but it did
 3 nothing to suggest that such an approach was required. *Ericsson*, 773 F.3d at 1226.

4 2. Dr. McDuff Does Not “Double Count” Apportionment

5 Carucel’s cursory argument that Dr. McDuff “double apportions” is not
 6 supported by any authority, or even much explanation. Dr. McDuff performed his
 7 apportionment in two steps—a Relevant Use Apportionment to account for usage
 8 that is not related to the economic value of the invention, and a Price-Based
 9 Apportionment to account for non-infringing functionality Novatel has added to
 10 MiFi products over the years. Stated differently, a MiFi 6620L device has both (1)
 11 limited relevant use and (2) non-infringing functionality that was not present in the
 12 original MiFi 2200, and thus both a use-based apportionment and price-based
 13 apportionment are appropriate for this product. *See, e.g., Summit 6*, 802 F.3d at
 14 1296 (approving multi-step apportionment, one step based on component cost and
 15 another based on user statistics show the frequency of infringing use).

16 3. Dr. McDuff Is More Than Qualified To Opine On the Value of
 17 Carucel’s Invention

18 Carucel’s attack on Dr. McDuff’s qualifications to rely on user statistics and
 19 government reports is misguided. Federal Rule of Evidence 702 permits expert
 20 testimony so long as the expert “is qualified by knowledge, skill, experience,
 21 training, or education” and possesses specialized knowledge that “will help the trier
 22 of fact to understand the evidence or to determine a fact in issue.” Fed. R. Evid. 702.
 23 Dr. McDuff is an expert on intellectual property damages, having been retained as
 24 an expert in more than 80 cases and qualified as such at trial in nearly a dozen cases.
 25 While Dr. McDuff does not have “experience in the transportation industry,” that is
 26 utterly beside the point because he is not opining on “transportation patterns.” (Mot.
 27 at 7.) Instead, Dr. McDuff is valuing the economic contribution of Carucel’s
 28 claimed invention—something he is undoubtedly qualified to do.

1 The statistics underlying Dr. McDuff’s Relevant Use Apportionment fall
 2 squarely within his purview as an economist. It is well-settled that experts may
 3 testify about what documents reveal and whether they are relevant to their ultimate
 4 opinions in a case. *See Presidio Components, Inc. v. Am. Tech. Ceramics Corp.*,
 5 702 F.3d 1351, 1360 (Fed. Cir. 2012); *Oracle Am., Inc. v. Google Inc.*, No. C 10-
 6 03561 WHA, 2011 U.S. Dist. LEXIS 136172, at *7 (N.D. Cal. Nov. 28, 2011)
 7 (allowing expert damages testimony where expert relied on technical background
 8 documents relevant to damages analysis). The Federal Circuit has held that
 9 “frequency of expected use and predicted value” are relevant to *Georgia-Pacific*
 10 factor 11, which concerns “[t]he extent to which the infringer has made use of the
 11 invention; and any evidence probative of the value of that use.” *Lucent*, 580 F.3d
 12 at 1324. Accordingly, Dr. McDuff analyzed the frequency of MiFi use in transit
 13 (the use that is relevant to Carucel’s invention) based on the types of evidence—user
 14 statistics and reports prepared by the Bureau of Labor Statistics and U.S. Census
 15 Bureau—that are regularly used by economists.

16 4. User Statistics Are a Reliable Basis For Estimating Relevant Use

17 “[S]urvey evidence should ordinarily be found sufficiently reliable under
 18 *Daubert*,” because “[u]nlike novel scientific theories, a jury should be able to
 19 determine whether asserted technical deficiencies undermine a survey’s probative
 20 value.” *Sentius Int’l, LLC v. Microsoft Corp.*, No. 5:13-CV-00825-PSG, 2015 WL
 21 331939, at *2 (N.D. Cal. Jan. 23, 2015) (admitting survey and related testimony
 22 despite expressing “significant concerns about both the structure of the survey and
 23 the way in which it was conducted,” because such criticisms “go to the weight, and
 24 not the admissibility, of the survey.”). Dr. McDuff’s Relevant Use Apportionment
 25 is based on a staggering volume of data—nearly [REDACTED] real-life MiFi sessions.
 26 Courts routinely admit survey evidence based on far smaller samples. *See, e.g., i4i*,
 27 598 F.3d at 855 (district court did not abuse its discretion in admitting expert’s
 28 testimony on damages based in part on a survey with a sample size of 46 total

1 respondents). Even assuming the Verizon data contains flaws—and Carucel has not
 2 identified any specific flaw, aside from attorney argument—those concerns are a
 3 matter for cross examination, not exclusion.

4 Dr. McDuff did not, as Carucel asserts, merely adopt Verizon's opinions as
 5 his own. In addition to relying on Dr. Kenney and Verizon engineers for the
 6 technical elements related to the collection and interpretation of the data, Dr.
 7 McDuff performed his own assessment of the reliability and representativeness of
 8 the data based on his experience and knowledge as an economist. This included an
 9 analysis of the appropriate time period (*e.g.*, days of the week, the extent to which
 10 the data may be influenced by seasonality) and the selected locations (commuting
 11 patterns and the rates of commuting by car or train). He utilized the data collected
 12 by Verizon but performed his own calculation of the confidence intervals associated
 13 with the data, which led him to conclude that the sample was more than sufficient to
 14 permit “statistically valid conclusions about the percentage of the relevant use case.”
 15 (McDuff Report at ¶ 45a(i).) In any event, courts have permitted defense experts to
 16 calculate damages based on usage statistics supplied by the accused infringer. *See,*
 17 *e.g.*, *Finjan*, 2015 WL 4272870 at *6.

18 Carucel baldly asserts that the dataset is not representative, but it makes no
 19 attempt to actually point to specific flaws. Importantly, Dr. McDuff provided
 20 Carucel with the formula needed to calculate confidence intervals, and yet Carucel
 21 apparently chose not to do so. Had Carucel actually performed the calculation, they
 22 would have realized what Dr. McDuff already knew based on his expertise—that
 23 confidence intervals for a binomial distribution require just a few hundred data
 24 points, whereas the user statistics relied on by Dr. McDuff provide *tens of thousands*
 25 of data points. Dr. McDuff’s recognition that the percentage of relevant use
 26 “[c]ould [] be a couple of percentage points higher or . . . lower” is hardly
 27 surprising, since every survey and sampling methodology entails a certain degree of
 28

1 imprecision. Carucel fails to explain why or how any imprecisions in the Verizon
 2 data are so egregious as to warrant exclusion under *Daubert*.

3 Carucel's other criticisms of Dr. McDuff's analysis of the data amount to
 4 nitpicking, and at best raise issues for cross-examination. *First*, the fact that data
 5 was collected after the damages period is irrelevant because the "book of wisdom"
 6 permits experts to rely on data post-dating the hypothetical negotiation, and Carucel
 7 has pointed to no good reason to believe that MiFi usage today is different than it
 8 was during the damages period. Finally, as Dr. McDuff explains in his report, his
 9 focus on sessions involving four or more towers is necessary to accurately determine
 10 use in transit—in densely populated areas, users may connect to three base stations
 11 by traveling less than a half-mile. In any event, Carucel has the raw data, and thus it
 12 is perfectly capable of cross-examining Dr. McDuff on how his damages
 13 calculations would change if he included sessions involving less than four towers.

14 5. Dr. McDuff's Reliance On Time Use Surveys Is Reasonable and
 15 Reliable

16 As a secondary method of estimating the percentage of MiFi use while in
 17 transit, Dr. McDuff relies on studies published by reliable sources that are routinely
 18 relied upon by economists—*i.e.*, the Bureau of Labor and Statistics, the U.S. Census
 19 Bureau, and the Department of Transportation. The fact that these documents don't
 20 specifically relate to "mobile hotspot usage" has no bearing on whether Dr. McDuff
 21 may draw reasonable conclusions from data related to work and travel. The degree
 22 of specificity demanded by Carucel—*e.g.*, that Dr. McDuff must have "data about
 23 how many [survey] participants owned or used wireless hotspots," and "how often
 24 hotspots were used while engaged in various activities"—has no basis in law.

25 Carucel's remaining complaints are just a series of conjectures as to why the
 26 conclusions Dr. McDuff draws from the data may be inaccurate. Carucel may be
 27 correct that people use hotspots less frequently while at home, but does not explain
 28 why this would have a material affect on Dr. McDuff's conclusions regarding time

1 spent traveling for work or recreation. Similarly, Carucel posits that some people
 2 may actually use their MiFi devices while driving, but does not provide any
 3 evidence that would suggest that is prevalent enough to render the time use studies
 4 “useless.” Finally, the fact that a damages “methodology was not peer-reviewed or
 5 published does not necessitate its exclusion.” *Summit* 6, 802 F.3d at 1298.

6. Dr. McDuff’s Price-Based Apportionment Properly Accounts
 For the Value of Later-Added Non-Infringing Functionality

7 Plaintiff’s claim that Dr. McDuff “violated” the entire market value rule is
 8 based on a clear misunderstanding of the EMVR. The EMVR prohibits a party—
 9 invariably the patentee—from basing the royalty on the entire value of the accused
 10 products, except in the rare circumstances that the patented feature creates the basis
 11 for demand for the product. *Uniloc*, 632 F.3d at 1318–21. Dr. McDuff’s royalty is
 12 not based on the entire market value of the accused products—Carucel does not
 13 claim otherwise. Thus, his Price-Based Apportionment does not violate the EMVR.
 14

15 Contrary to Plaintiff’s contention, the EMVR does not mandate a single
 16 “correct methodology,” or prevent experts from apportioning based on something
 17 other than specific components. To the contrary, “under th[e] apportionment
 18 principle, there may be more than one reliable method for estimating a reasonable
 19 royalty,” *Commonwealth Sci. & Indus. Research Organisation v. Cisco Sys., Inc.*,
 20 809 F.3d 1295, 1301 (Fed. Cir. 2015) (quotation marks omitted), and courts have
 21 approved a wide variety of apportionment methodologies. *See, e.g., Droplets, Inc.*
 22 *v. Overstock.com, Inc.*, No. 2:11-CV-401-JRG-RSP, 2015 WL 11120843, at *2
 23 (E.D. Tex. Jan. 7, 2015) (apportionment based on survey regarding relative
 24 importance of infringing features of defendants’ websites); *Ultimatepointer, LLC v.*
 25 *Nintendo Co., Ltd.*, No. C14-0865RSL, 2014 WL 7340545, *7-*8 (W.D. Wash.
 26 Dec. 22, 2014) (rejecting challenge to defendant’s damages expert on the ground
 27 that he did not use the “smallest saleable unit,” and permitting the expert to
 28 apportion based on “certain commercial, non-technical attributes,” including

1 “market share, brand recognition, reputation, retail network, etc.”); *PerdiemCo, LLC*
 2 v. *Industrack LLC*, No. 2:15-CV-726-JRG-RSP, 2016 WL 6611488, at *2 (E.D.
 3 Tex. Nov. 9, 2016) (apportionment based on costs of designing around). Simply
 4 put, there is no support for Carucel’s assertion that apportionment must be based on
 5 a *technical* opinion related to specific components at the BOM level.

6 Furthermore, the manner in which Dr. McDuff accounts for non-infringing
 7 functionality is squarely within his expertise as an economist—by analyzing product
 8 prices. He compares the price of the MiFi 2200—the first product with the
 9 allegedly infringing features and the product the parties have agreed to treat as a
 10 representative product for purposes of infringement—to the prices of later models in
 11 order to determine the value of added functionality. (McDuff Report, ¶¶ 45e, 71,
 12 Attachments C-3, D-1). Carucel fails to identify a single flaw with this analysis.
 13 Instead, it criticizes Dr. McDuff for effectively attributing 100% of the MiFi 2200 to
 14 the patented functionality, which is simply not true—McDuff apportions out 92.5%
 15 of the value of the MiFi 2200 based on the Relevant Use Apportionment, he simply
 16 does not further apply a Price-Based Apportionment to that product. And while
 17 Carucel may be right that pricing differentials may reflect “factors wholly unrelated
 18 to the underlying technology,” this only underscores the fact that the product value
 19 beyond the price differentials must be apportioned out of the royalty base.⁷

20 B. Dr. McDuff’s Analysis of the Gogo Settlement Is Proper

21 Dr. McDuff’s analysis of the Gogo settlement does not violate the EMVR.
 22 Carucel once again fails to cite any authorities in support of its argument, and

23
 24 7 Carucel criticizes McDuff for not applying a price-based apportionment to the
 25 MiFi 2200. At the outset, this only works in Carucel’s favor. More importantly, Dr.
 26 McDuff’s primary apportionment is based on relevant use; the price-based
 27 apportionment is applied solely to account for the value of features (e.g., improved
 28 GUIs, LCD displays, support for multiple client devices) which are clearly beyond
 the scope of Carucel’s patents.

1 Defendants have been unable to locate a single case where a defense expert was
 2 precluded from opining on a patentee's prior license due to a supposed failure to
 3 apportion. In fact, courts have held that prior licenses involving the patents-in-suit
 4 "inherently allocate value" to the patented method and therefore do not implicate the
 5 EMVR. *See, e.g., In re Maxim Integrated Prods., Inc.*, No. 12-945, 2015 WL
 6 5311264, *6-*12 (W.D. Pa. Sept. 11, 2015). The fact that the Gogo settlement
 7 "may not be perfectly analogous . . . generally goes to the weight of the evidence,
 8 not its admissibility." *PerdiemCo*, 2016 WL 6611488 at *2-*4.

9 Furthermore, there is no inconsistency between Dr. McDuff's treatment of the
 10 Gogo settlement and his treatment of the Novatel hypothetical negotiation. Dr.
 11 McDuff does not apply a Relevant Use Apportionment to the Gogo settlement
 12 because Gogo's products—unlike Novatel's products—can only be used when
 13 moving at high speeds. Thus, a Relevant Use Apportionment is appropriate with
 14 respect to Novatel, but not Gogo.

15 C. Dr. McDuff's Analysis of Comparable Novatel Licenses Is Closely
 16 Tied to the Facts of the Case

17 Dr. McDuff took a standard economic approach to the licenses under the
 18 *Georgia-Pacific* factors. He first determined which agreements involved
 19 comparable technology, based on technical considerations from Dr. Kenney and his
 20 own economic assessments. (McDuff Report, ¶¶ 55a-551, 56, 58-60.) He then
 21 evaluated the comparable licenses using a wide variety of *Georgia-Pacific* factors,
 22 including (a) technological value based on discussions with Dr. Kenney, (b) the
 23 products licensed under the agreements, (c) the similarity in time periods, and (d)
 24 the identity of the licensee and licensor and the commercial relationship between
 25 them. Dr. McDuff did not blindly rely on all licenses, only those which he
 26 determined were comparable—three of the 12 Novatel "in-licenses" and four of the
 27 six Novatel "out" licenses. He identified a royalty range supported by each group of
 28 licenses and selected a specific royalty from each range based on his assessment of

1 comparability and application of the *Georgia-Pacific* factors. Carucel advances
 2 several criticisms of McDuff's analysis, but none of them have merit.

3 First, while Carucel is right that Dr. McDuff does not make specific
 4 quantitative adjustments to the royalty of any particular agreement, the reason is
 5 simple—he determined the agreements were sufficiently comparable that *no*
 6 *adjustments were necessary*. Carucel may disagree with that conclusion, but that is
 7 no basis for exclusion under *Daubert*. *See ActiveVideo Networks, Inc. v. Verizon*
 8 *Commc'ns, Inc.*, 694 F.3d 1312, 1333 (Fed. Cir. 2012) (holding that “the degree of
 9 comparability of the . . . agreements as well as any failure on the part of
 10 ActiveVideo’s expert to control for certain variables are factual issues best
 11 addressed by cross examination and not by exclusion.”) (citation omitted).

12 Second, while Carucel identifies a handful of distinctions between certain
 13 licenses and the hypothetical negotiation, it never explains why any of these
 14 distinctions are material. For example, Carucel faults Dr. McDuff for “failing” to
 15 account for the fact that the Novatel-MLR license predates the hypothetical
 16 negotiation by four years, even though Carucel’s own damages expert based his
 17 damages calculation on a settlement executed more than four years after the
 18 hypothetical negotiation—without making any “adjustments” based on that fact. *Cf.*
 19 *2-Way Computing, Inc. v. Sprint Solutions, Inc.*, No. 2:11-cv-12, 2015 WL 2365648,
 20 *3-*5 (D. Nev. May 18, 2015) (denying motion to exclude expert testimony on
 21 comparable licenses because the movant failed to show reasons why the differences
 22 in the license agreements were material to the expert’s damages analysis).

23 Third, Carucel cites no support for its claim that damages experts must
 24 identify specific products covered by a comparable license, much less “establish the
 25 quantity or value of the products.” (Mot. at 17.) More importantly, Carucel is
 26 simply wrong to assert that Dr. McDuff failed to consider the scope of the products
 27 covered by the Novatel licenses. While Carucel appears to concede that the Novatel
 28 “in” licenses presumably include all of the accused products, it inexplicably insists

1 Dr. McDuff must “provide . . . technical analysis” rather than rely on commonsense
2 inferences and the plain language of the licenses. Similarly, with respect to
3 Novatel’s “out” licenses, the licensees are manufacturers of *competing mobile*
4 *hotspot devices*—Franklin Wireless, ZTE, Sharp, etc. Dr. McDuff was entitled to
5 rely on the assumption that the licenses include *at least* mobile hotspots—and in the
6 one instance where he identified a license that is significantly broader than the
7 hypothetical license in this case (the Nova-ZTE license, which covers smartphones
8 and tablets in addition to hotspots), he specifically accounted for that difference.

9 Finally, Carucel’s complaint that Dr. McDuff “arbitrarily” chose the median
10 or average of each group of Novatel licenses (Mot. at 17-18) borders on the absurd.
11 The standard approach for selecting a data point from a range of values is to use the
12 median or average. There is no data point that would be any *less* “arbitrary.”

13 **V. CONCLUSION**

14 For the foregoing reasons, Defendants respectfully request that Carucel’s
15 motion be denied in its entirety.

16 Dated: March 20, 2017

17 QUINN EMANUEL URQUHART
& SULLIVAN, LLP

18
19 Bv: /s/ Amar L. Thakur
20 Amar L. Thakur
21 Email: amarthakur@quinnemanuel.com

22 Attorneys for Defendants Novatel Wireless,
23 Inc., Verizon Communications, Inc. and
24 Cellco Partnership d/b/a Verizon Wireless